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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,163	07/18/2003	Kenneth W. Koch		2716

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Kenneth A. Roddy
Suite 105
2916 West T.C. Jester Boulevard
Houston, TX 77018

EXAMINER

KORNAKOV, MICHAIL

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/623,163

Applicant(s)

KOCH ET AL.

Examiner

Michael Kornakov

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5 and 8 is/are rejected.
- 7) ☒ Claim(s) 10-13 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 07/18/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 20-31 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention and claims 14, 16-19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 03/11/2005. However, the Applicant has failed to point out wherein either (1) the reasons advanced by the Examiner to establish distinctiveness between the inventions as claimed and grouped or (2) the evidence of separate status, classification and/or search are in error. Therefore the restriction requirement is made **FINAL**.

In further telephone interview held on May 12, 2005 with Mr. Rody, esq., the provisional election was made to prosecute species of graphite and corrosion inhibitor LMG-30E™. Thus claims 4, and 6 and 7 are also withdrawn from consideration, as being drawn to nonelected species.

2. Claims 1-3, 5, 8-13, and 15 are examined on the merits.

Specification

3. The use of the trademark LMG-30E™ has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology. Although the use of trademarks is permissible in patent applications, the

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proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 5, and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With regard to claims 5 and 8, if the trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of the 35 U.S.C. 112, second paragraph. ***Ex parte Simpson***, 218 USPQ 1020 (Bd. App. 1982).

The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. In fact, the value of a trademark would be lost to the extent that it became descriptive of a product, rather than used as an identification of a source or origin of a product. Thus, the use of a trademark or trade name in a claim to identify or describe a material or product would not only render a claim indefinite, but would also constitute an improper use of the trademark or trade name. See MPEP 2173.05(u).

Claim Objections

6. Claim 15 is objected to as being in improper form because it depends on cancelled claim. See MPEP § 608.01(n). Accordingly, the claim 15 has not been further treated on the merits.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 2 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 839762.

GB'762 discloses a method of on-line cleaning during operation of gas turbines operating on fuel oils, wherein the carbonaceous material, such as graphite, that produces carbon particles in the gas stream entering the turbine is added by injection to a fuel stream during use (col.2, lines 83-86) and the fuel with these particles contacts the surfaces to be cleaned. Thus a small proportion of finely powdered graphite is added to the fuel that contacts the walls and other surfaces of turbine (col.1, lines 10-15, 24-31 and 33-35). The particle size of graphite is that at least 90% of particles are below 20 micron (col. 2, lines 77-79). This reads for, instance on 19 micron or any other number, which is a data point within the claimed range. Thus, the limitations of the instant claim 1 are met by GB'762.

With graphite other corrosion inhibitors can be used, such as magnesium compounds, according to GB'762 col.2, lines 60-65. This reads on the limitations of claim 5.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over GB'762 in view of Cheng et al (U.S. 4,163,728).

While disclose the corrosion inhibitors being magnesium compounds, as elaborated above, GB'762 does not specify LMG as a specie of such. Cheng discloses magnesium carboxylates as being good corrosion inhibitors, especially for vanadium containing fuels for use in gas turbines. In its own turn GB'762 is concerned with contaminants of vanadium pentoxide derived from vanadium containing fluid, and does suggest the genus of magnesium containing compounds as corrosion inhibitors. Therefore, it would have been obvious to those skilled in the art at the time the invention was made to utilize specific corrosion inhibitor (LMG/magnesium carboxylate), as taught by Cheng in the similar process of GB'762 in order to prevent accumulation of ash contaminants caused by vanadium from the fuel and thus to arrive at the instant subject matter.

13. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over GB'762. GB'762 does not specify quantities of graphite to corrosion inhibitors as instantly claimed. However, suggests that graphite is added to a fuel in the amount of 1% by weight, thus leaving open ended possibilities for the amount of suggested corrosion inhibitor, and therefore, it would have been obvious to those skilled in the art at the time the invention was made to utilize 1% of graphite as taught by GB'762 and 99% of

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corrosion inhibitor, that is also taught by GB'762 with the reasonable expectation of success.

14. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over GB'762 as evidenced by US 3,934,637 to Potier .

According to Potier expandable graphite means particulate graphite the particles of which on heating, intumesce to give a low density highly heat insulative vermicular structure. This graphite will, on heating, usually to temperatures in excess of 150° C, expand to many times its original volume. Therefore, it would have been obvious to employ expandable graphite in GB'762 in order to ensure good heat insulation properties and ensure good cleaning due to a significant expansion of particles volume.

Allowable Subject Matter

15. Claims 10-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record does not teach or suggest that in addition to graphite particles and specific corrosion inhibitor, aromatic solvent is involved in the process of on-line cleaning gas turbine surfaces.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Kornakov whose telephone number is (571) 272-1303. The examiner can normally be reached on 9:00am - 5:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael Kornakov
Primary Examiner
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05/13/2005